DOCUMENT RESUME

ED 106 265 SP 009 174

AUTHOR Stannard, Charles I.
TITLE Some Conditions for Organiational Problem-Solving.
NOTE 17p.

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Administrative Problems; Change Strategies; Educational Administration; *Educational Change; Educational Objectives; Educational Research; Learning; *Organizational Change

ABSTRACT

The change process consists of a series of stages, beginning with awareness of organizational dysfunction and culminating in successful implementation of change. Difficulties in instigating change in schools are due to: (a) diffused and poorly defined school goals and objectives; (b) a school environment of conflicting and contradictory expectations from parents and other taxpayers; (c) an uncompetitive school environment; and (d) minimal control by schools over the people they educate. An important determinant of an organization's ability to define and diagnose its problems is its technology and the degree to which members share the technology. People should first agree that change is necessary to alleviate a problem, and second, agree that the particular change decided on is the best one. Reaching such consensus is facilitated by precise and shared organizational ends as well as a highly developed and shared organizational technology. School rated lower than business on such change-promoting factors. By implication, change in schools would be more difficult and less frequent than in organizations which were high in such factors. (JS)

ED106265

# SOME CONDITONS FOR ORGANIZATIONAL PROBLEM-SOLVING

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SP009 174



Charles I. Stannard
Abt Associates Inc.
Cambridge, MA 02138

This paper will discuss some conditions that affect the ability of organizations like schools to identify problems and formulate solutions to them. The paper begins with a brief discussion of the change process as viewed by problem-solving theorists. It then looks at some conditions that affect the ease with which an organization like a school can move to a decision regarding change. In discussing these conditions an attempt is made to determine the degree to which they are present in schools.

The Change Process

Change best proceeds from felt needs is an idea common to the literature on planned change and is the basis for much writing and thinking on problem-solving and self-renewal in schools (Miles, 1965; Buchanan, 1967; Schmuck and Miles, 1971; Schmuck et al., 1972). Various techniques designed to enhance the ability of schools to set goals, identify needs, and diagnose problems have been described and used such as survey feedback, self-study, Delphi technique, the creation of temporary systems, etc. (Cf. Schmuck et al., 1972). The assumption is that if these techniques can be incorporated into the life spaces of schools, change will occur easier and schools will become more effective, responsive, and adaptive institutions.

The change process, according to problem-solving theorists (Lippitt et al., 1958; Havelock, 1971: Chap. 10), consists of a series of stages beginning with the awareness of organization or system dysfunction and culminating in the successful implementation of a change or innovation though, of course, no one argues that change is inevitable once the process is begun.

The stages generally encompass the following activities: sensing a problem, diagnosing the problem, searching for and formulating solutions to the problem, choosing from potential solutions the one most appropriate to the particular situation, and implementing the chosen solution. These stages are defined technically or logically in terms of their functions for successive activities. The activities of any one stage are preparatory for and necessary for the activities of successive stages. A less obvious or latent function of these stages is to overcome or reduce resistance to change among organizational members. The activities associated with the particular stages of the change process should convince organizational members that a problem exists in the organization; they should produce agreement about the diagnosis of the problem; they should produce concensus about the types of solutions to be sought or formulated, and they should produce concensus that the particular solution chosen for implementation is the most appropriate under the circumstances. This might be termed the persuasion function of the stages of the change process with each stage increasing the commitment of people to change. It is the reason theorists who advocate the problem-solving model also advocate widespread participation of organizational members in the activities associated with the change process.[1]

Conditions Affecting the Change Process

Different conditions affect different stages of the change process. The presence of clear, specific, and shared goals and objectives affects the ease with which school members can sense the existence of problems and the need for change. The presence of an explicit, precise, powerful, and shared technology affects

the ease with which members of an organization like a school can diagnose problems, formulate solutions, and choose among them. Each of these conditions are discussed below.

The stimulus for planned change and problem-solving typically occurs when people begin to experience a sense of difficulty or need, when they perceive that something is wrong in the organization or social system in which they work or function (Lippitt et al., 1958: 73-74, 131-133). The location of the source of difficulties in the organization as opposed to the individual is neither immediate, obvious, or to be assumed, crucial though this may be to organizational problem-solving. An important condition affecting the development of a sense of need or deprivation is the degree to which the particular organization or organizational subunit is characterized by specific goals and performance standards. Specific and unambiguous goals and performan standards are necessary in order for the performance of the organization, organizational subunit, and individual member to be measured and assessed. They provide targets and benchmarks against which actual performance can be measured. When objectives, goals, and performance standards are stated in precise, measurable terms, the chances that organizational members will notice these are increased. Precise and measurable objectives, goals, and performance standards also increase the chances that organizational members will locate the source of their difficulties at the organizational level because they -- the objectives, goals, and performance standards -- frame discourse in the organization and suggest an organizational nature to problems, difficulties, and failings.

The goals and objectives of schools, compared to those of other organizations, are generally diffuse and poorly defined. By way of example, here are a few "objectives" from the written philosophy of a school.

> "To encourage the student to recognize the need for an education to prepare himself to meet the demands of an ever-changing world."
>
> "To provide an environment conducive to a good learning situation."
>
> "To stimulate students to self-improvement -- morally, physically, and socially."

Stated at this level of generality and imprecision, it is difficult to determine whether the school is even doing anything is the way of concrete practice to achieve these objectives, much less the degree to which these objectives are being fulfilled or achieved.

Though it is common to attribute this lack of precision to the complex activities involved in teaching and learning (for instance, Jackson, 1968: 159-177), environmental factors are important causes of this imprecision as well. Schools generally exist in an environment of conflicting and contradictory expectations from parents and taxpayers. While almost everyone probably agrees that "frills" should be eliminated from education, agreeing on what exactly constitutes a frill is likely to cause problems. For some guidance, art, and music are "frills" and needless and costly deviations from the "basics;" to others these same programs are an integral part of education while athletics are the "frill." One way schools accommodate this diversity of expectations is by articulating vague and general objectives and standards

which are unlikely to provoke disagreement or conflict from the public even though their vacuity renders them inadequate as guides for policy and assessment.

Another reason for the lack of goal clarity and specificity is that schools are domesticated institutions. They exist in an uncompetitive environment (Carlson, 1965: Drucker, 1973) and are not held accountable the way other types of organizations are. Schools do not have to please their clients in the same way that the local shoe store must in order to remain viable. Rather, all schools have to do is have their budgets approved by the taxpayers. This mean that revenues for schools are at best only loosely tied to performance. As a result an important pressure for specifying objectives in other types of organizations is not present in schools.

A final reason for the lack of goal clarity and specificity in schools is the fact that schools have only minimal control over whom they admit and educate. Generally, young people are enrolled in schools on the basis of age and residence (and race in many communities though this supposedly is illegal), not on the basis of interest in or talent for schooling. The exceptions to this are the severely intellectually and emotionally handicapped students and, in a few districts, the intellectually superior. Schools try to accommodate this diversity of "input" by creating "tracks" and special programs for students perceived to have differing educational needs and futures. Schools by and large have not specialized to any great extent in the United States and a consequence of this is the lack of clear-cut mission and direction in the schools.

The presence of precise objectives and performance standards is not enough to insure that an organization will pass easily through the need-sensing stage of change. It is also important, at least in schools, for teachers and administrators to share these objectives, goals, and performance standards.[2] As noted earlier, the goals and objectives of an organization like a school frame the discourse about organizational performance. When goals and objectives are shared, gaining agreement about the existence of organizational shortcomings is facilitated and initial resistance to change may be lessened. When consensus on organizational goals and objectives is lacking, there is likely to be disagreement over whether anything in fact is "wrong" in the first place. Take, for instance, attrition or drop-out. Whether an increase in the rate of attrition will be lamented or applauded or even noticed will depend in part on what various administrators and teachers take to be the purpose of schools and schooling. Lacking such agreement, conflict over whether such a phenomenon is indicative of a shortcoming of the schools is likely to ensue and consideration of the issue may be buried in the conflict.

The degree of consensus about goals and objectives may be lower in schools than in other types of organizations. For one thing, teachers have a fair amount of autonomy over their work (Lortie, 1969) and the more professional they are, the less likely they are to conform to directives from their superiors (Warren, 1968). This autonomy includes setting course objectives and determining the content and content of the courses and classes they teach. A consequence of this

autonomy is that it creates the conditions that allow for the frequent emergence of factions of traditional and nontraditional teachers on school faculties.

This diversity of goals and objectives is also built into the structure of schools. Elementary and secondary teachers work under differing conditions and face different problems in their work (Hodgkins and Herriott, 1970) and these are likely to manifest themselves in varying objectives and goals. The various curricula and tracks in schools as well as special programs also serve to institutionalize differing objectives in the schools and reduce consensus that would facilitate discussion about organizational shortcomings.

Schools thus appear to be lower than organizations like businesses on those conditions or factors which affect the ability of an organization to sense shortcomings and problems and gain consensus among members that the shortcomings and problems in fact do exist. What about the ability of schools to move through the other stages of the change process? The next stage in the change process is diagnosing the problem. This involves defining exactly what the problem is and specifying and analyzing its causes. Cast in causal terms, the problem then becomes amenable to action designed to alter or eliminate it. And, once causes are identified, the search for possible solutions is narrowed considerably. Only variables that deal with the causes of the particular problem need be considered for change.

An important determinant of an organization's ability to define and diagnose its problems is its technology. Organizations vary in what might be called the adequacy or power

of their technologies (Perrow, 1965; Woodward, 1965; Thompson, 1967). In some types of organizations the tasks of the organization are well understood, the connections between organizational means and organizational ends certain, the causal beliefs underlying the organization's tasks are well articulated and explicit. They form a model which is both elaborate and precise and the technology is often rooted in the hard or natural sciences. In other types of organizations, on the other hand, the tasks of the organization are not well understood, the link between ends and means is tenuous and uncertain, the causal beliefs governing the organizations tasks are at best rudimentary and incipoate and based on a mixture of convention, tradition, and soft science. It is important to note that technology, as the term is used here, does not refer to specific pieces of harware, such as a computer, turret lathe, or teaching machine, or to specific techniques, such as radiation therapy in medicine or homogeneous grouping in education, but to the ideas and beliefs that govern both the way work is organized and the use and design of both hardware and techniques in organizations.

In organizations where the tasks are well understood and the organizational technology is conceptually elaborate and precise, most problem definition and diagnosis are likely to take on a routine character. The range and types of problems or shortcomings that are likely to occur are generally known so that a repertory of definitions of problems already exists. Likewise, the causes of specific problems are also known so that by defining a particular problem, its causes tend to be specified as well. Further, solutions to these various problems, based on past experience, will exist and be held in

ready for implementation when problems do arise. As March and Simon (1958: 140) put it:

> When a stimulus is of a kind that has been experienced repeatedly in the past, the response will ordinarily be highly routinized. The stimulus will evoke, with a minimum of problem-solving or other computational activity, a well-structured definition of the situation that will include a repertory of response programs and programs for an appropriate specific response from the repertory.

In organizations where the organizational task is not well understood causally, problem identification and problem diagnosis are difficult and frequently time-consuming tasks. Because the conceptual schemes that do exist are a mixture of fold wisdom, convention, tradition, and soft science, problem diagnosis is hindered both by an inadequate vocabulary of causes and, at the same time, often by a multiplicity of competing causes generated to "explain" the problem under consideration, a large number of which, while plausible, are not capable of being manipulated by the organization. As a result, time has to be spent in the problem identification and diagnosis stage of change "inventing" a causal vocabulary to use in discussing the problem at hand. And criteria have to be created to reduce the total number of "causes" to a manageable number. Problem identification and diagnosis in organizations lacking well developed technologies tend to be nonroutine and inefficient.

Compared to other organizations, the technology of schooling seems poorly developed. Jackson (1968) notes that teachers' talk about teaching and learning is characterized by "conceptual simplicity," an intuitive approach to the classroom, and only vaguely indicative of an understanding of the learning process. Further, research on the effect of the basic elements of schools -- resources, curricula, teaching styles and teacher qualifications --

has consistently shown that they have little impact on student learning when attributes of the student are controlled for (Coleman et al., 1966; Smith, 1972; Astin, 196 ; Averch et al., 1972; Jencks, 1972ab; Stephens, 1967; Dubin and Taveggia, 1968). The clear implication of research on the impacts of schooling on student achievement is that the learning process, at least in schools, is not well understood.

Whether or not members of an organization share causal beliefs about the tasks of the organization also affects the ability of the organization to identify and diagnose problems. To the extent that such beliefs are shared, conflict over the what is "causing" a particular problem can be avoided or at least minimized. Where such beliefs are not shared, conflict is likely to occur and the organization may find itself fragmented into groups with differing views on the particular problem. This, obviously, hinders the change process.

Lack of consensus on organizational technology is more likely in organizations where the technology is less well developed than in organizations where it is highly developed. In organizations with well developed technologies, the very efficacy of the technology itself is a force for consensus, independent of other mechanisms organizations use to achieve such consensus (socialization, selective recruitment, the reward structure). In organizations with poorly developed technologies, like schools, beliefs about the causes of the organizational task may well be a matter of individual choice.

These two factors, the state of the organization's technology and the degree to which members share this technology, affect the search and formulation of solutions and the choice among

them in ways similar to the way they affect the problem diagnosing stage of change. Where the problem is well analyzed and specific causes of it have been specified, the search and formulation for solutions is somewhat simplified because of the power of the causal beliefs. And because the organizational task and problem is well understood, the implications of the various possible solutions may be perceived fairly clearly, making choice among the possible solutions easier as well. With a poorly developed technology the formulation of solutions to the particular problem is more difficult. The ability to forecast with any degree of accuracy the consequences of potential solutions is also difficult where the organizational technology is not very powerful and thus choosing among solutions is hindered as well. The ambiguity of criteria for searching for and formulating solutions and choosing among them lends an element of arbitrariness and randomness to these processes in situations where the causes of the problem are poorly understood.

The degree to which people share causal beliefs in the organization affects the amount of conflict and dissension that is likely to accompany both the search for and formulation of solutions and choice among them. A high degree of consensus on the causes of the problem as well as on the nature of the solution that is desired should reduce the conflict involved in these activities. Where consensus is low, conflict is likely to accompany these activities and hinder their successful completion.

As indicated, the end result of the successful passage through the first four stages of the change process should be a decision about a specific solution to a problem and a

commitment on the part of organizational members to that solution. People should agree that change is necessary to alleviate a problem and that the particular change decided upon is the best one under the conditions that prevail at that time in the organization. The argument of this paper has been that reaching this point is facilitated by clear, precise, and shared organizational ends and a highly developed and shared organizational technology or means. The paper also argued that schools, compared to other types of organizations like businesses, were low on these factors and thus, by implication, change would be both more difficult and less frequent than in organizations which were high on these factors.[3]

FOOTNOTES

1. Implicitly recognizing the persuasion function of the early stages of the change process, the problem-solving theorists have tended to concentrate on ways of overcoming resistance to change (Watson, 1967) and have neglected difficulties associated with implementation as Gross et al., (1971) have cogently argued.

2. The issue of consensus on objectives, goals, and performance standards as well as on technology is complicated. Consensus is important among those empowered either explicitly or by default to make decisions about these issues. In hierarchically ordered organizations, this may be a relatively small number of individuals charged with such decisions. Authority relations effectively remove such considerations from the bulk of the members of the organization. In organizations where decision-making is diffused, consensus has to extend to a greater number of actors. Colleges and universities are good examples of organizations where power is diffused throughout the organization. Schools seem to occupy a middle position between the collegiality of higher education and the authoritarianism of many businesses.

3. I do not argue that once the members of an organization agree to make a specific change, implementation automatically follows. Gross and his associates (1971) demonstrate very clearly and conclusively that implementation is a difficult task even when people in the organization are initially in favor of the particular changes to be made.

## REFERENCES


Astin, Alexander W.
1968 Undergraduate achievement and institutional "excellence". Science, 161: 661-668

Averch, Harvey A, Stephen J. Carroll, Theodore S. Donaldson, Herbert J. Kiesling, John Pincus.
1972 How effective is Schooling? A critical review and synthesis. Santa Monica, Cal.: Rand Corporation.

Buchanan, Paul C.
1967 The concept of organization development, or self-renewal, as a form of planned change. In Goodwin Watson (ed.) Concepts for Social Change. Washington, DC: National Training Laboratory, National Education Association.

Carlson, Richard O.
1965 Barriers to change in public schools. In Richard O. Carlson, Art Gallaher, Jr., Mathew B. Miles, Roland J. Pellegrin, Everett M. Rogers, Change processes in the public schools. Eugene, Or.: Center for the advanced study of educational administration.

Coleman, James J., Ernest Q. Campbell, Carol J. Hobson, James McPartland
1966 Alexander M. Mood, Frederic M. Weinfeld, Robert L. York. Equality of educational opportunity. Washington, DC: US Government Printing Office.

Drucker, Peter F.
1973 Managing the public service institution. The Public Interest, 33 (Fall): 43-60.

Dubin, Robert and Thomas C. Taveggia.
1968 The teaching-learning paradox. Eugene, Ore.: Center for advanced study of educational administration.

Gross, Neal, Joseph Giacquinta, Marily Bernstein.
1971 Implementing organizational innovations. NY: Basic Books.

Havelock, Ronald.
1971 Planning for innovation. Ann Arbor: Center for research on the utilization of scientific knowledge, University of Michigan.

Hodgkins, Benjamin and Robert Herriott
1970 Age-grade structure, goals, and compliance in schools: an organizational analysis. Sociology of Education 43 (Winter): 90-105.

Jackson, Philip
1968 Life in classrooms. NY: Holt, Rinehart and Winston

Jencks, Christopher.
1972a Inequality, NY: Basic Books.

Jencks, Christopher
1972b The Coleman Report and conventional wisdom. In Frederick Mosteller and Daniel P. Moynihan (ed.). On equality of educational opportunity, NY: Vintage.

Lippitt, Ronald, Jeanne Watson, and Bruce Westley.
1958 The dynamics of planned change, NY: Harcourt, Brace and Co.

Lortie, Dan C.
1969 Tne balance of control and autonomy in elementary school teaching. In Amatai Etzioni (ed.). The semi-professions and their organization. NY: The Free Press.

March, James and Herbert Simon
1958 Organizations, NY: Wiley.

Miles, Mathew B.
1965 Planned change and organizational health: figure and ground. In Richard O. Carlson, Art Gallaher, Jr., Mathew B. Miles, Roland J. Pellegrin, Everett M. Rogers. Change processes in the public schools. Eugene, Ore.: Center for advanced study of educational administration, University of Oregon.

Perrow, Charles.
1965 Hospitals: technology, structure and goals. In J. March (ed.) Handbook of Organizations. Chicago: Rand McNally.

Schmuck, Richard A. and Mathew B. Miles.
1971 Organizational development in schools. Palo Alto, Ca.: National Press Books.

Schmuck, Richard A., Philip J. Runkel, Steven L. Saturen, Ronald T.
1972 Martell, C. Brooklyn Derr. Handbook of organization development in schools. Palo Alto, Ca.: National Press Books.

Smith Marshall
1972 Equality of Educational Opportunity: the basic findings reconsidered. In Frederick Mosteller and Daniel P. Moynihan (eds.). On equality of educational opportunity, NY: Vintage.

Stephens, J. M.
1967 The process of schooling, NY: Holt, Rinehart and Winston.

Thompson, James
1967 Organizations in action, NY: McGraw-Hill.

Warren, Donald
1968 Power, visibility, and conformity in formal organizations. American Sociological Review 33 (Dec.): 951-970.

Watson, Goodwin.
1967 Resistance to change. In Goodwin Watson (ed). Concept for social change. Washington, DC: NTL Institute for Applied Behavioral Science.

Woodward, J.
1965 Industrial organization. London: Oxford.

17